

Application No. 10/775,519  
Response to Office Action dated July 6, 2006  
Page 5 of 6

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### REMARKS

The foregoing amendments are made to more thoroughly define the subject matter applicants regard as their invention. Support for the limitations in the new claims can be found in the original claims as well as in the specification, for example, at page 2, line 28 and page 4, line 11.

The rejections of the claims under 35 U.S.C. §103 are respectfully traversed, insofar as they apply to the claims as amended.

#### No Motivation to Modify the References

The fundamental technical principle on which the McCoy draining system operates is that a **sub-atmospheric pressure** is established in the gravel layer beneath the root zone, which sub-atmospheric pressure is **substantially uniform** across the gravel layer. See, col. 3, lines 25-32. Accordingly, if McCoy's vacuum system 25 and associated piping 21/24 were replaced by Knutson's vertical wick system, as proposed in this rejection, the ability of McCoy's draining system to provide this **substantially uniform sub-atmospheric pressure** would be lost. That being the case, it is clear that this rejection is not based on what the references fairly suggest but rather on a hindsight reconstruction of the prior art using applicant's own specification as a guide.

In this connection, MPEP §§2142 V & VI make clear that, in determining if a *prima facie* case of obviousness has been established, a proposed modification cannot render a prior art reference unsatisfactory for its intended purpose or change its principle of operation. This is exactly what would occur here if McCoy's draining system were modified in the manner proposed in this rejection, since without McCoy's vacuum pump 25, a **sub-atmospheric pressure** could not be maintained.

Therefore, it is clear that this rejection is improper under the PTO's own guidelines for determining obviousness, and hence this rejection should be withdrawn without further delay.

#### All Limitations Not Suggested

As indicated in MPEP §2143.03, all claim limitations must be taught or suggested by prior art in order to establish *prima facie* obviousness. Claim 37 specifies that the elongated

Application No. 10/775,519  
Response to Office Action dated July 6, 2006  
Page 6 of 6

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porous drainage members pass vertically downwardly beginning from within the sandy root layer and extending substantially into the gravel layer. Similarly, claim 51 specifies that the elongated porous drainage members vertically span the interface between the sandy root layer and the gravel layer. Moreover, both claims 37 and 51 further specify that, because of these features, excess perched water passively drains out of the field without application of subatmospheric pressure to its gravel layer.


Neither McCoy nor Knutson suggests arranging Knutson's elongated porous drainage members to span the interface between McCoy's sandy root layer and its gravel layer. Nor do these references suggest any system in which excess perched water can passively drain from a field, since both require vacuum pumps to work. (Knutson requires a vacuum pump to draw collected water from the field, while McCoy requires a vacuum air pump to cause excess perched water to drain.) Accordingly, even if these references are combined, they still fail to make out a *prima facie* case of obviousness with respect to the inventive drainage system as now claimed.

If any fees are required, the Examiner is authorized to charge them to our Deposit Account No. 03-0172.

Respectfully submitted,

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By: \_\_\_\_\_

  
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